

Abstract

A heat exchanger and method of manufacturing thereof comprises an interface layer for cooling a heat source. The interface layer is coupled to the heat source and is configured to pass fluid therethrough. The heat exchanger further comprises a manifold layer that is coupled to the interface layer. The manifold layer includes at least one first port that is coupled to a first set of individualized holes which channel fluid through the first set. The manifold layer includes at least one second port coupled to a second set of individualized holes which channel fluid through the second set. The first set of holes and second set of holes are arranged to provide a minimized fluid path distance between the first and second ports to adequately cool the heat source. Preferably, each hole in the first set is positioned a closest optimal distance to an adjacent hole the second set.